THE ELUCIDATOR
Office of Surety, Safety and Environment (SSE)
U.S. Army Medical Research Materiel Command
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http://mrmc-www.army.mil

Reminder

For all accidents, no matter how minor,

specific forms documenting the incident must be submitted to your Safety Office.

Military: DA Form 285-AB-4

Civilian: DOL Claims Forms CA-1 or CA-2

All employees requiring medical attention must visit your local Occupation Health Clinic as soon as possible post mishap.

UNITED STATES ARMY MEDICAL RESEARCH AND MATERIEL COMMAND
November 2008 Newsletter
Office of Surety, Safety and Environment (SSE)

THE SSE ELUCIDATOR

"Elucidate: to give clarity through explanation and analysis."

INSIDE THIS ISSUE

REDUCING HOLIDAY WASTE

In just a few weeks the holiday season will kick start with Black Friday, the Friday after Thanksgiving, which is the beginning of the traditional Christmas shopping season. Over the holiday season, consumers flock to malls, department stores, and outlets in search of gifts, cards, trees, and more. But as we enjoy the holidays, we also consume lots of resources and generate lots of waste. A recent report noted that the amount of household garbage in the U.S. generally increases by 25 percent between Thanksgiving and New Year's Day. The extra waste amounts to 25 million tons of garbage, or about one million extra tons per week. There are many things you can do to reduce the amount of waste generated during the holidays. The tips below cover a wide variety of things you can do from reducing paper products used to changing your gift-giving focus.

Christmas and Gift Cards

- Buy holiday cards made from recycled paper or make your own creative cards on recycled paper.
- Remember to recycle any paper cards you receive.
- Consider sending postcards or photocards that don't require an envelope. You can also try sending electronic greeting cards to reduce paper waste.
- Be selective when deciding how many holiday cards to send.

Gift Giving

- Keep it simple: one thoughtful gift is better than six wrapped packages of unwanted gifts.
- Let children know that what you really want does not have to come from a store. Their time is even

REQUIRED RATING ELEMENT

Army Regulation 385-10, The Army Safety Program, requires that rating elements measuring application and use of Composite Risk Management, and health and safety responsibilities be included in all Officer Evaluation Reports and Enlisted Evaluation Reports for military leaders as well as Army Civilian Employee Performance Appraisals for civilian managers and supervisors. This is a requirement and an area that the Army evaluates during inspections. Supervisors at all levels need to ensure that this is being accomplished. Questions regarding this requirement and how to comply should be addressed to Mr. Geoffrey K. Phillips, USAMRMC Safety Manager, at phone 301-619-8806, or email geoffrey.phillips@us.army.mil.

REDUCING HOLIDAY WASTE (CONT.)

more valuable. Children can give coupons for their time as Christmas presents in ways such as taking on extra chores, cooking dinners, watching a younger sibling, or giving plenty of hugs and kisses.

- Give a monetary donation to a local charity in someone else's name. Many people feel good knowing that they are helping out someone during the holidays.
- Give gifts that don't require any wrapping paper. Consider music lessons, lessons for a new hobby, a massage, a trip to a state park, or tickets to a sporting event or play. This is perfect for friends who want to try something new but aren't willing to spend the money on themselves.
- Invest in your family and friends. Instead of giving a gift, contribute to a child's savings account, education IRA or give them a U.S. Savings Bond.
- When buying gifts, check product labels to determine an item's recyclability and whether it is made from recycled materials. Buying recycled encourages manufacturers to make more recycled-content products available.
- Recycle unwanted and duplicated gifts by promptly exchanging them or giving them to a local charity.
- About 40 percent of all battery sales occur during the holiday season. Buy rechargeable batteries to accompany your electronic gifts, and consider giving a battery charger as well. Rechargeable batteries reduce the amount of potentially harmful materials thrown away, and can save money in the long run.

Wrapping Paper and Packaging

- Thousands of paper and plastic shopping bags end up in landfills every year. Reduce the number of bags thrown out by bringing reusable cloth bags for gift shopping. Tell the clerks you don't need a bag for small or oversized purchases.

- Wrap gifts in recycled or reused wrapping paper, newspaper, or funny papers. Also remember to save or recycle used wrapping paper.
- Reuse packaging cartons and shipping materials.
- Use those tins you've been saving for gift boxes.
- Don't wrap oversized gifts. Hide them and give the recipient clues. Make the search a treasure hunt.
- Make the wrapping a useful part of the gift; put cookies in a flower pot or hide jewelry in a new pair of gloves or socks. Just make sure that the receiver finds the gift if it's hidden!

Holiday Decorations

- Buy outdoor light strands that are wired in parallel. If one bulb goes bad, the others still work, so you won't be throwing away "bad" strands.
- Put all your lights on timers for energy savings. Program the timer to turn off or unplug holiday lights during the day. Doing so will not only save energy, but will also help your lights last longer and provide peace of mind while you're away.
- Have a create-your-own-decorations party! Invite people to create and use decorations such as ornaments made from old greeting cards, garlands made from strung popcorn or cranberries, and wreaths made from artificial greens and flowers.
- Approximately 33 million live Christmas trees are sold in North America every year. After the holidays, look for ways to recycle your tree instead of sending it to a landfill. Check with your community solid waste department and find out if they collect and mulch trees. Your town might be able to use chippings from mulched trees for hiking trails and beachfront erosion barriers.

THE SSE ELUCIDATOR'S MONTHLY *CARELESS CALAMITIES*

Welcome to the latest edition of the *Careless Calamities*, your monthly compendium of injudicious acts and ill-advised stunts that seemed like a good idea at the time that it was devised.

1. We've witnessed the invention of the "extreme sport," starting with activities like skydiving, rock climbing, mountain biking, and skateboarding. Somewhere amid all this hype and marketing, a truly extreme sport has been ignored: bowling. Your average night of pinbusting doesn't involve high winds, steep hills, speed and adrenaline, but the injury count from the lanes is impressive. The latest victim was an ET2 from a submarine. He was trying to put some spin on his ball but neglected to put his thumb in the designated hole. Since he couldn't actually control the ball using this innovative technique, it rolled off his hand and hit the lane with his other fingers in the ball. Next stop was the nearest ER, where doctors found that he'd broken his knuckle and torn some tendons. Six weeks in a splint, then enough rehab so that he had to miss the last three months of deployment.

2. In the news recently was an Associated Press report about a Louisiana man who was "showing his girlfriend how to handle a pistol" while parked at a fast-food restaurant. He also demonstrated how to forget you have just loaded it, how to squeeze the trigger while putting the gun into the door panel, and how to shoot yourself in the leg. He proceeded to repeatedly inform the investigators that he was "ex-military and knows how to handle a gun." He sure had a fine way of showing it.

3. Seems a pair of PFC's and a Lance Corporal, all food service specialists, were cooking themselves up a mess of excitement by roaring around the streets of Yuma. The mishap report described this activity as "street racing." Not sure who they were racing but they lost, unless it was some sort of automotive biathlon, the second half being a swim, in which case they might have won because their car flipped into a canal. No, come to thinking about it, they definitely lost. The Jetta was totaled, and the 19-year-old driver ended up in the hospital for 10 days with a plethora of internal injuries, followed by six weeks of light duty.

4. At a shipyard in Japan, a foreign civilian was going about his business, togged out in the approved PPE ensemble of hard hat (with chin strap), leather gloves, and steel-toe boats. Unfortunately, none of this PPE did him much good when he stepped on a sponge sheet and fell into a manhole, one of six in the area that contractors were sandblasting. The sponge sheet is placed over the open manhole to keep sand from getting blown out of them. They work great for that. They just don't' work very well when it comes to keeping things from going in (or, in other words, from illustrating why they call it a "manhole"). Nope, that would take some sort of portable barrier and some warning signs. Without that, all you have is a booby-trap. Minor injury to the worker, but sure could have been worse.

5. How would you finish this sentence "PERSONNEL THIS CLOSE TO RETIREMENT SHOULD..." You're probably thinking, how senior was this person and what did he (I'd add "or she," but it hardly ever is a "she") do? Well, he was a Chief Quartermaster and he was dirt biking. The rest of the sentence should read "... WAIT UNTIL THEY ARE RETIRED TO ENGAGE IN SUCH HIGH-RISK ACTIVITIES SUCH AS OFFROAD DIRTBIKING." When he went roaring around a curve, he lost control and turned his dirt bike into a tree bike, which he found didn't work nearly as well. He crashed, broke his leg, spent a day in a hospital and nine weeks on LIMPDU. Actually, no one wants to be retired with a broke leg either. Why not just learn how to ride an ATV to begin with? And by "learn" we don't mean just figuring out how to start it, step on the gas, and steer.

That's all for this month friends and neighbors. Remember, when you're about to ride an ATV over unfamiliar terrain, you have a choice. You can familiarize yourself with the trail by examining it while traveling at a manageable speed, or you can familiarize yourself with a small patch of dirt real fast using your face.

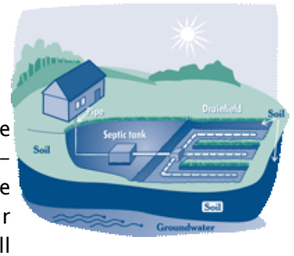
10 STEPS FOR PROPER SEPTIC SYSTEM MAINTENANCE

Failing Septic System

Septic (onsite) wastewater systems include a wide range of individual and cluster treatment systems that process household and commercial sewage. These systems are used in approximately 25 percent of all U.S. homes. If your septic tank has failed in the past, you are not alone. An estimated 10 to 20 percent of septic systems malfunction each year causing pollution problems and public health threats. Failing septic systems can contaminate the ground water that you or your neighbors drink and can pollute nearby rivers, lakes, and coastal waters. Failing septic systems are a leading cause of waterborne disease outbreaks. As a homeowner, you are responsible for maintaining your septic system. Proper septic system maintenance will help keep your system from failing and will help maintain your investment in your home.

Here are ten simple steps you can take to keep your septic system working properly.

1. Locate your septic tank and drainfield. Keep a drawing of these locations in your records.
2. Have your septic tank pumped and system inspected every 3 years to ensure optimum operation.
3. Don't dispose of household hazardous wastes in sinks or toilets. They will enter the environment through the drainage field and potentially contaminate local groundwater.
4. Never flush nonbiodegradable materials such as oil, grease, plastic products, rags, sanitary napkins, diapers, condoms, dental floss, and cat litter. They do not decompose well, often clogging the septic tank's pipes, increasing the frequency of cleaning or costly repairs. Avoid putting liquid grease down the kitchen sink drain as it solidifies it may cause blockage of the pipes in the system. These materials reduce the septic systems ability to properly treat wastewater from your home and potentially allow contaminates to enter ground water or near by streams and/or marine waters.
5. Practice water conservation. By reducing water use you reduce the demand on your septic system and on the soil treating your wastewater. This will extend the life of your septic system and safe guard the environment from septic seepage.



6. Plant only grass over and near your septic system. Do not plant trees or shrubs near or over the septic drainage field. The roots of trees and shrubs can clog the pipes and fittings of the system reducing the septic systems ability to properly treat wastewater from your home and potentially allow contaminates to enter nearby waterways. When planting new trees consider their location and their distance from your septic tank and drainage field.
7. Keep vehicles and livestock off your septic system. The weight can damage the pipes and tank, and your system may not drain properly under compacted soil.
8. Similarly, do not construct any permanent structure such as a garages, patio or swimming pools, over the drainage field, or within 7 meters of any component of the drainage field.
9. Keep gutters and basement sump pumps from draining into or near your septic system or drainage fields. The soil in the septic area ordinarily absorbs the effluent from the septic tank. If the soil is wet or saturated with unnecessary rain water runoff, it may not be able to handle the tank effluent, resulting in septic failure and tank effluent may back up onto the ground surface.
10. Check with your local health department before using additives. Commercial septic tank additives do not eliminate the need for periodic pumping and can be harmful to your system.

EPA does not regulate septic systems. States, tribes, and local governments are responsible for regulating individual septic systems. Check out the following link http://cfpub.epa.gov/owm/septic/stateinfo.cfm for state and EPA regional contacts and links to state regulations and requirements.

WILDLIFE-PROOF YOUR HOME

With winter around the corner, it's time to protect your home from some uninvited holiday guests. Wildlife adds aesthetic value to urban and suburban environments. However, when human and wildlife environments overlap, there can be negative consequences. Wildlife is a significant public resource that is greatly valued by the public. However, as a highly dynamic and mobile resource, wildlife causes a variety of problems including:

- Risks to human health and safety
- Damage to agricultural, industrial, and personal property
- Threats to endangered species and natural resources (wildlife habitat and water quality)

Small Animals
(Raccoons, Skunks, Opossums, Squirrels)

1. Remove Over Hanging Limbs - Overhanging tree limbs are a major pathway for squirrels and raccoons to reach attics and chimneys, and are favorite nesting places for both species. If any tree limbs hang over the house, trim them back.
2. Inspect the Outside of the Home - Check the chimney, attic vents, and the structure itself for any openings more than 1/4 inch. All holes and openings should be blocked or screened with building materials resistant to gnawing or prying. Place screens over louvers, vents, and fan openings. Keep doors and windows in good repair. Tighten eaves and replace any loose or decayed boards. Seal off all foundation openings with 1/2 inch wire mesh, sheet metal or concrete.
3. Animal Proof Your Yard - Remove bird feeders or use squirrel-proof bird feeders. Remove acorns and other nuts from the yard. Store garbage cans in a garage or shed, or use metal cans and secure the lids with locks, straps, or tiedowns. Do not leave pet food outside. It attracts many wildlife species. Spray your lawn for grubs and water just before dawn so the water will settle and the grubs will sink into the ground before wildlife species become active during the night.

Large Animals
(Coyotes, Bears, Mt. Lions, Deer)

1. PROTECT YOUR PETS! Do not allow your pets to roam, especially at night. Make sure your yard is appropriately fenced with at least a six-foot fence. To further increase effectiveness, include electric fencing material.
2. Protect your livestock by using loud music, barking dogs, exploder cannons, nightlights, and scarecrows. To deter predators, change the position of objects to improve effectiveness. Trim and clean near ground level any shrubbery that provides hiding cover for predators or prey. Lambing and farrowing in protected enclosures prevents predation on young livestock.
3. Discourage deer by removing supplemental food sources, using plants that deer do not like for landscape, and by using scare devices and repellants.

EPA'S UPCOMING EVENTS

November

National Healthy Skin Month - For details visit the American Academy of Dermatology at http://www.aad.org/Public/

Lung Cancer Awareness Month - For details visit Alliance for Lung Cancer Advocacy, Support, and Education at http://www.alcase.org/

Day 15 - America Recycles Day - http://www.epa.gov/ecycling/live.htm

TAP WATER VS. BOTTLED WATER

Remember the drinking fountain, that once ubiquitous, and free, source of H2O? They are getting harder and harder to find, while sales of bottled water in this country have exploded in recent years. We consumed over eight billion gallons of the stuff in 2006, a 10 percent increase from 2005. Increases are largely a result of a public perception of purity driven by advertisements and packaging labels featuring pristine glaciers and crystal-clear mountain springs. However, is the bottled water sold in the United States actually cleaner or safer than most tap water-- and is the convenience worth the environmental impact? Watching bottled water ads, you'd think that tap water might not be healthy. Whether bottled water is better than tap water, and justifies its expense, is debatable.

Federal Regulations

The Food and Drug Administration regulates bottled water products that are in interstate commerce under the Federal Food, Drug, and Cosmetic Act (FD&C Act). Under the FD&C Act, bottled water manufacturers are responsible for producing safe and truthfully labeled products. The FDA also has established regulations specifically for bottled water, including standard of quality regulations, which set maximum levels of contaminants (chemical, physical, microbial, and radiological) allowed in bottled water. Generally, over the years, the FDA has adopted EPA standards for tap water as standards for bottled water. However, it is important to note that bottled water manufacturers are responsible for testing their own water with little to no oversight. Also, about 70 percent of bottled water never crosses state lines for sale, making it exempt from FDA oversight.

Conversely, municipal water systems serving 25 people or more are subject to the Federal Safe Drinking Water Act (SDWA), administered by the U.S. EPA. As such, the water is constantly and thoroughly tested for harmful substances such as bacteria and toxic chemicals. Also, while municipal water systems must test for harmful microbiological content in water several times a day, bottled water companies are required to test for these microbes only once a week. Similarly, public water systems are required to test for chemical water contaminants four times as often as bottled water companies. Finally, unlike tap water, where consumers are provided with test results every year, the bottled water industry does not disclose the results of any contaminant testing that it conducts.

Safety

Tap water may sometimes look or taste differently, but that doesn't mean it's unsafe. In fact, the most dangerous contaminants are those that consumers cannot see, smell, or taste. Many scientists have run tests that have consistently found that tap water is as good for you as bottled waters that cost 500 times more. While public safety groups correctly point out that many municipal water systems are aging and there remain hundreds of chemical contaminants for which no standards have been established, to date, no independent investigation has shown that bottled water passes more safety and health checks than tap water. In addition, according to a four-year study conducted by the Natural Resources Defense Council (NRDC), one-third of the bottled water tested contained levels of contamination which exceeds allowable limits under either state or bottled water industry standards or guidelines. Want to know how your community's tap water scores? Check out the Environmental Working Group's National Tap Water Database at http://www.ewg.org/tapwater/yourwater/.

Taste

If bottled water does not necessarily offer purer water than tap water, surely it provides a better tasting water product, right? While taste is certainly highly subjective, bottled water does not always taste better than tap water. While not a scientific study, Good Morning America recently conducted a taste test of its studio audience and New York City tap water was chosen as the heavy favorite over the oxygenated water 02, Poland Spring and Evian. An estimated 25 percent or more of bottled water is really just tap water in a bottle—sometimes further treated, sometimes not.

TAP WATER VS. BOTTLED WATER (CONT.)

Fluoride

Tap water has another advantage many people don't think about: It typically contains fluoride. Many communities have elected to add fluoride to drinking water to promote strong teeth and prevent tooth decay in residents. Bottled water often does not have fluoride added to it. Or, if tap water has been purified through reverse osmosis or distillation, the fluoride may have been removed. People who drink mostly bottled water, especially those who have children, need to be aware of this. They may need to use supplemental fluoride that is available by prescription from dentists or doctors. The supplements are usually recommended for children ages 7 to 16. Fluoride supplements cost around $15 for a three-month supply. However, you can get fluoride from things like soup or pasta made with tap water, and most toothpastes have fluoride. Still, if you never drink tap water, be sure to at least inform your dentist that you are relying on bottled water.

Environmental Impacts

Every year about 1.5 million tons of plastic go into manufacturing water bottles for the global market. In the U.S. alone 1.5 million barrels of oil are consumed in making the bottles. Bottling the water produces more than 2.5 million tons of carbon dioxide. It takes 3 liters of water to produce 1 liter of bottled water. Life cycle analysis shows that tap water has less than one percent of the impacts of refrigerated bottled water.

Once the bottled water is produced and consumed, the plastic bottle must be disposed of, which results in even more issues for our environment. While the plastic used to bottle beverages is of high quality and in demand by recyclers, over 80 percent of plastic bottles are simply thrown away. Incinerating the used bottles produces toxic byproducts and buried water bottles can take up to 1,000 years to biodegrade. For those bottles that are actually recycled, almost 40 percent of the polyethylene terephthalate (PET) bottles that were deposited for recycling in the United States in 2004 were actually exported, sometimes to as far away as China, thus requiring additional resources. That assumes empty bottles actually make it to a garbage can. Plastic waste is now at such a volume that vast eddies of current-bound plastic trash now spin endlessly in the world's major oceans. Thanks to its slow decay rate, the vast majority of all plastics ever produced still exist … somewhere.

Community Impacts

Once consumers become distanced from public water systems due to switching their water consumption to bottled sources, they have little incentive to support bond issues and other methods of upgrading municipal water treatment.

There's plenty of need. For example, in California, the American Society of Civil Engineers estimated the requirement of $17.5 billion in improvements to the state's drinking water infrastructure as recently as 2005. In the same year, the state lost 222 million gallons of drinkable water to leaky pipes. Thanks to increasing urbanization and population, shifting climates, and industrial pollution, fresh water is becoming humanity's most precious resource. Multinational corporations are stepping in to purchase groundwater and distribution rights wherever they can, and the bottled water industry is an important component in their drive to commoditize what many feel is a basic human right: the access to safe and affordable water.

Bottled Water Alternatives

- Use pitchers of water at your work and community events.
- Use containers that you can refill with tap water when you are away from home.
- If there is a problem with water quality in your community, use a good quality water filter which is much cheaper than bottled water and does not produce mounds of plastic waste. The average cost of filtered water is $0.13/gallon compared to $1.27 for bottled water.
- Advocate for adequate funding and good public management of municipal water systems.